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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/735,495	12/14/2000	Peter Malm	040071-229	8377
21839	7590	06/17/2004	EXAMINER	
BURNS DOANE SWECKER & MATHIS L L P			OSMAN, RAMY M	
POST OFFICE BOX 1404			ART UNIT	
ALEXANDRIA, VA 22313-1404			PAPER NUMBER	
			2157	
DATE MAILED: 06/17/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	09/735,495	MALM, PETER	
	Examiner	Art Unit	
	Ramy M Osman	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,8,9 and 15 is/are rejected.
- 7) ☒ Claim(s) 3-7,10-14,16 and 17 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

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Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 8 rejected under 35 U.S.C. 103(a) as being unpatentable over Akahane (US Patent No 5,881,104) in view of Khullar et al (US Patent No 6,400,928).

Akahane teaches transmitting information to a receiver in the form of data blocks using packet-based transmission; decoding the received data blocks; and compressing data blocks (Abstract, column 2 lines 1-33 and column 6 lines 16-67).

Akahane fails to explicitly teach compressing failed data blocks, wherein a failed data block is a data block that fails the decoding process; storing the compressed failed data blocks; decompressing the failed data blocks; combining a decompressed failed data block with an associated retransmitted data block; and decoding the combined data block. However, Khullar teaches data failing a decoding process, storing the failed decoded data in memory, combining the failed decoded data with re-transmitted block, and then decoding the combined data so as to improve decoding after retransmission (column 3 lines 1-41 and column 6 lines 20-45).

It would have been obvious for one of ordinary skill in the art to modify Akahane by retransmitting any failed data block, compressing and storing the failed block, and subsequently

Art Unit: 2157

decompressing and combining retransmitted block with stored block as per the teachings of Khullar so as to improve decoding after retransmission.

3. Claims 2,9 and 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Akahane (US Patent No 5,881,104) in view of Khullar et al (US Patent No 6,400,928) in further view of Koyata (US Patent No 6,366,545).

Akahane in view of Khullar teach method of claim 1 above. Khullar teaches soft values that are not decoded properly, and storing them in memory (column 5 lines 5-45 and column 6 lines 20-45). They fail to explicitly teach wherein compressing failed data blocks comprises: calculating a scale factor that represents soft values within the failed data block; and storing the scale factor and a sign of each soft value within the failed data block in memory. However, Koyata teaches compressed data by calculating a scale factor that represents transmitted data (column 4 lines 20-60, column 5 lines 10-30 and column 20 lines 10-40).

It would have been obvious for one of ordinary skill in the art to modify Akahane in view of Khullar by compressing the failed decoded data by calculating a scale factor for the soft value data and storing the scale factor along with the soft value into memory as per the teachings of Koyata so that the compressed data can save memory space and later be combined with a retransmitted block as taught by Akahane in view of Khullar above.

Art Unit: 2157

Allowable Subject Matter

4. Claims 3-7,10-14,16 and 17 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

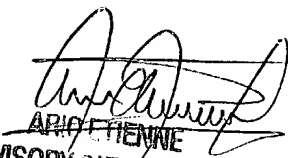
5. The following is a statement of reasons for the indication of allowable subject matter. The following limitations if rewritten into the independent claims would indicate allowable subject matter:

- wherein said scale factor is an average of absolute values of the soft values in the failed data block,
- wherein decompressing the failed data block comprises multiplying the scale factor by the stored soft value signs, and
- wherein said soft values are logarithmically scaled values.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramy M Osman whose telephone number is (703) 305-8050. The examiner can normally be reached on Monday through Friday 9AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (703) 305-7562. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

RMO
June 7, 2004


ARIO ETIENNE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

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